Geometric Optics (5314) Course Requirements
Dr. Adrian Glasser

Instructor: Adrian Glasser, Ph.D.
Office: 2143
Phone: (713) 743-1876
Class meets: Monday, Wednesday & Friday, 9:00 am - 9:55 am
Course materials (lectures, handouts, problem sets, etc) are available on the College Intranet at:
http://intranet.opt.uh.edu/courses/opto5314/index.htm

I will have office hours on Wednesdays, 1:00 – 2:00 pm.

Required Text


Supplemental Texts (Available on reserve in the library)


General Course Information

I teach Geometric Optics, not just for you to pass this course, but 1) so you are well prepared for the many other optics classes you will have, 2) so you are well prepared for optics on the board exams and 3) so you may ultimately practice effectively as an optometrist. I certainly hope you will pass this course, but that is your task. This is not an easy class. Thinking, problem solving and a good understanding of optics are required. The only way to learn optics is to do optics. It is necessary to do optics problems, and to do them often and regularly. This class and the exams are structured with that in mind. Expect to see exam questions that are structured or phrased differently from those covered in class. They are designed to challenge you. If you can solve these kinds of problems, then you will be well prepared to pass this class, the board exams and practice effectively as an optometrist.

If you are having difficulty with this class:
- do something about it immediately
- do more problems (practice, practice, practice)
- come and talk to me (regularly, if necessary)
- meet with the class optics tutor (to be assigned)
- find a 2nd, 3rd, or 4th year student who will serve as a personal optics tutor
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- speak to Dr. Julie Jackson or Roger Boykins in the office of student affairs for further assistance

Optometry 5314, or Optics 1, is the first of a two-course series in basic optics that you will complete over the next year. Optics 1 is geometric optics and Optics 2 is a combination of geometric and physical optics. In addition, there are two separate accompanying laboratory courses that give you hands-on experience with the concepts taught in the lectures. A basic understanding of geometry is required for this class. Some of you may not have had a class in geometry. If you have not, I strongly recommend that you find a geometry text and study it. You may see exam questions different from those covered in class (either in the exams or on the boards) that will require a basic understanding of geometry.

Equipment needed for this course includes a basic scientific calculator (no continuous memory), a ruler, and a protractor. You are required to bring a calculator and ruler to all exams and quizzes. You will not be allowed to share your calculator with another student during an exam. The calculator must have trigonometric functions and be able to do trigonometric functions and squares and square roots.

Problem Sets

Problem sets will be handed out during class. The assigned problems must be completed and handed in by the end of class on the assigned dates (usually just prior to the exams). Full credit for the problem sets (5% of the course grade) will be given for simply handing in completed problem sets on time with all calculations shown. These problems sets will not be graded, but I will go through them to be sure they are being completed correctly. They will not be returned to you. Please make copies for yourself before handing them in. Zero credit for this full 5% will be given if all solution sets are not turned in, are late or incomplete. Solutions sets are posted on the College Intranet web site for this course (the web address is provided above).

Grading

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<thead>
<tr>
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<th>Percentage of Grade</th>
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<tbody>
<tr>
<td>Examination 1</td>
<td>25%</td>
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<tr>
<td>Examination 2</td>
<td>30%</td>
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<tr>
<td>Problem sets</td>
<td>5%</td>
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<tr>
<td>Final Exam</td>
<td>40%</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
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A failing grade for each exam is a score less than two standard deviations below the mean (i.e., mean - 2* SD). You will not pass the course if your semester score is equal to or less than two standard deviations below the mean of the semester grades. Eight passing categories of letter grades and an F will be awarded. Letter grade cutoffs are calculated as follows:

- A > Failing grade + ((100% - Failing grade) / 8) * 7
- A- > Failing grade + ((100% - Failing grade) / 8) * 6
- B+ > Failing grade + ((100% - Failing grade) / 8) * 5
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B  >  Failing grade + (( 100% - Failing grade) / 8 ) * 4
B- >  Failing grade + (( 100% - Failing grade) / 8 ) * 3
C+ >  Failing grade + (( 100% - Failing grade) / 8 ) * 2
C  >  Failing grade + (( 100% - Failing grade) / 8 ) * 1
C- >  Failing grade
F  < or = Failing grade

This means that your absolute percentage is not important. It is your percentage relative to the class grade as a whole that will determine your letter grade.

Exams will be given during exam weeks and will only cover the lecture material. The laboratory is a separate course. The final exam will deal with material that is covered in class after the second exam, but it is comprehensive in the sense that optics that you learn from day one will apply to all optics that you do this semester.

**Academic Misconduct**

Any and all instances of academic misconduct are viewed as extremely serious. It is taken as implicit that a student is to report all such instances to the instructor promptly. Not to do so must be considered supportive of the offending party.

**Absences**

To minimize unfair advantage to other students, no make-up examinations will be given unless an excuse has been properly filed with the instructor prior to the exam. In an emergency, immediate notification can be made by leaving a date/time recorded message on my office voice mail (713) 743-1876 or through the Office of Student Affairs at (713) 743-2045.

**Americans with Disabilities Act (ADA)**

The ADA requires that the University of Houston make reasonable accommodations for those who may require assistance. If you believe you may need of additional help under the ADA guidelines please contact me.

**Behavioral Objectives**

The student will have a working knowledge of concepts, language, terminology, definitions, equations, and principles of geometric optics, confidence in geometric optics problem solving and a comprehensive understanding of how geometric optics relates to the profession of optometry.

**Course Evaluations**

In order to receive a grade in this course, you must submit a course evaluation through the Web
based input system at the end of the semester. Details of this process will be explained at a later date.

Adrian Glasser, Ph.D.